

Remarks:

As indicated in the aforementioned personal interview, this amendment provides agreed upon steps that should resolve all issues listed as follows.

A terminal disclaimer is hereby filed to resolve the double patenting concern. An appropriate fee is also submitted.

Claim 11 has been amended as agreed to eliminate the section 112 concern. As to such concern, and as explained in the interview, it is reiterated that the specification addresses and defines the terms “long” and “small” on pages 12, 15, 16, 17, 18, 21, and 33, thus the concerns are believed resolved with this amendment.

Independent claims 1 and 145 have been amended precisely as agreed in the interview to resolve the 35 USC §101 concern. Further the claims and the amendments have been explained and the 35 USC §102 concerns have also been resolved as discussed.

Additional dependency claims are added to address a downhole embodiment. To support these, the specification has been amended to explicitly include language that was stated in the provisional applications and which had been incorporated by reference. Specifically, the language stated is set forth in the provisional applications at clause 4 on page 43 (US Provisional Application No. 60/451,218) and at clause 4 on page 46 (US Prov. App. No. 60/527,130). Both these applications stated: “The method of claim 1 where the solution gas content of the formation water is determined in situ by a downhole measuring device.” These priority applications were incorporated by reference with the original application and this incorporated language is merely explicitly added to the indicated paragraph to address added claims.

Further, as indicated, previously canceled claims are reinstated by adding such claims at the end as new claims. Claim fees are submitted for all additional claims. In order to aid the examiner, both the added claims (indicated NA in the original number column) and the reinstated claims (showing old original claim numbers) can be tracked most easily by the following table.

New	Original	176	# NA
<u>Claim #</u>	<u>Claim #</u>	177	# NA
173	# NA	178	# NA
174	# 6	179	# NA
175	# 7	180	# 16

181	# 17	227	# 98
182	# 18	228	# NA
183	# 19	229	# NA
184	# 20	230	# NA
185	# 21	231	# 107
186	# 22	232	# 108
187	# 23	233	# 109
188	# 24	234	# 110
189	# 25	235	# 111
190	# 26	236	# 112
191	# NA	237	# 114
192	# NA	238	# 115
193	# NA	239	# 117
194	# NA	240	# 118
195	# NA	241	# NA
196	# NA	242	# 119
197	# 62	243	# 124
198	# 63	244	# 125
199	# 64	245	# 126
200	# NA	246	# 127
201	# 65	247	# 128
202	# 66	248	# 129
203	# 67	249	# 130
204	# 68	250	# 131
205	# 69	251	# 132
206	# 70	252	# 133
207	# 75	253	# 134
208	# 76	254	# 135
209	# 77	255	# 136
210	# 78	256	# 137
211	# NA	257	# 138
212	# 79	258	# 139
213	# 80	259	# 140
214	# 81	260	# 141
215	# 82	261	# 142
216	# 83	262	# 143
217	# NA	263	# 148
218	# NA	264	# 149
219	# 90	265	# 150
220	# 91	266	# NA
221	# 92	267	# NA
222	# 93	268	# 151
223	# 94	269	# 154
224	# 95	270	# 155
225	# 96	271	# 156
226	# 97	272	# 157

273	# NA
274	# NA
275	# 158
276	# 159
277	# NA
278	# NA
279	# 160
280	# 161
281	# 162
282	# 163
283	# 164
284	# 165
285	# 166
286	# 167
287	# 168
288	# 169
289	# 171
290	# 172

It is believed that these amendments are self explanatory. However, in the event further explanation is needed, please feel free to contact the undersigned by telephone for any further explanation.

Finally, it should be understood that the amendments submitted herein are made as a matter of practicality only, and should not be construed as creating any situation of file wrapper estoppel or the like as all rights are expressly reserved and may be pursued in this or other applications, such as divisionals, continuations, or continuations-in-part if desired. Amendments are made for tangential issues of clarity and as a matter of the Office's convenience or expedience only. The amendments should not be interpreted as an action that in any way surrenders a particular equivalency, surrenders any right to patent coverage, or otherwise limits any rights that the Applicant may now or hereafter assert. It should be understood that, unless and to the extent deemed broadened by this amendment, and even as amended, the Applicant expressly reserves all rights, including but not limited to: all rights to maintain the scope of literal coverage with respect to any element as may have existed under the language previously presented, all rights to maintain the scope of equivalency coverage as may have existed under the language previously presented, and all rights to re-present the prior language at any time in this or any subsequent application. To the extent currently foreseeable, no change or reduction in direct or equivalency coverage is believed to exist, and no change or reduction in direct or equivalency coverage is intended through the presentation of this amendment.

Conclusion:

The specification has been amended as agreed in the interview to resolve all issues. Allowance of claims 1-5, 8-15, 27-61, 71-74, 84-89, 99, 100-106, 113, 116, 120-123, 145-147, 152-153, and 173-290 is requested.

Dated this 27th day of December, 2006.

Respectfully submitted,

/Alfred K. Wiedmann Jr./

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